UNITED STATES DEPARTMENT OF COMMERCE United States Patent and Trademark Office Address: COMMISSIONER FOR PATENTS P.O. Box 1450 Alexandria, Virginia 22313-1450 www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO. CONFIRMATION N		
10/587,282	05/22/2007	John Christopher Rudin	200313701-2	4910	
	7590 01/15/200 CKARD COMPANY	EXAMINER			
	00, 3404 E. HARMON	WONG, TINA MEI SENG			
INTELLECTUAL PROPERTY ADMINISTRATION FORT COLLINS, CO 80527-2400			ART UNIT	PAPER NUMBER	
			2874		
			NOTIFICATION DATE	DELIVERY MODE	
			01/15/2009	ELECTRONIC	

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

JERRY.SHORMA@HP.COM mkraft@hp.com ipa.mail@hp.com

Office Action Summary		Application No.	n No. Applicant(s)					
		10/587,282		RUDIN ET AL.				
		Examiner		Art Unit				
		TINA M. WONG		2874				
The MAILING DATE of Period for Reply	this communication app	pears on the cove	r sheet with the c	orrespondence ac	ddress			
A SHORTENED STATUTOR WHICHEVER IS LONGER, F - Extensions of time may be available up after SIX (6) MONTHS from the mailin - If NO period for reply is specified abov - Failure to reply within the set or extend Any reply received by the Office later to earned patent term adjustment. See 3	ROM THE MAILING DAN INTERPRETATION OF TH	ATE OF THIS CO 36(a). In no event, how will apply and will expire , cause the application t	OMMUNICATION vever, may a reply be time SIX (6) MONTHS from to become ABANDONEI	I. lely filed the mailing date of this of (35 U.S.C. § 133).				
Status								
1) Responsive to commu	nication(s) filed on 03 D	ecember 2008						
2a) This action is FINAL .	· · ·	action is non-fin	al.					
/ —	<i>'</i> —			secution as to the	e merits is			
<i>,</i> — · · ·	Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under <i>Ex parte Quayle</i> , 1935 C.D. 11, 453 O.G. 213.							
Disposition of Claims	·	•						
·	sis/are nending in the a	nnlication						
	Claim(s) <u>1-9 and 14-18</u> is/are pending in the application. 4a) Of the above claim(s) is/are withdrawn from consideration.							
	4a) Of the above claim(s) is/are withdrawn from consideration. 5) Claim(s) is/are allowed.							
6)⊠ Claim(s) <u>1-9 and 14-18</u>								
7) Claim(s) is/are o								
8) Claim(s) are sub	-	r election require	ement					
		r oloolloir roquire	, morte.					
Application Papers								
9)☐ The specification is obj								
10)⊠ The drawing(s) filed on	· ·		=	-				
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).								
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).								
11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.								
Priority under 35 U.S.C. § 119								
 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f). a) All b) Some * c) None of: 1. Certified copies of the priority documents have been received. 2. Certified copies of the priority documents have been received in Application No 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)). * See the attached detailed Office action for a list of the certified copies not received. 								
Attachment(s) 1) Notice of References Cited (PTO-6) 2) Notice of Draftsperson's Patent Dr 3) Information Disclosure Statement(Paper No(s)/Mail Date 7/25/06.	awing Review (PTO-948)	4)	Interview Summary Paper No(s)/Mail Da Notice of Informal Pa Other:	te				

Art Unit: 2874

DETAILED ACTION

Election/Restrictions

Applicant's election without traverse of Group I, claims 1-9 and 14-18 in the reply filed on 03 December 2008 is acknowledged. It is noted that Applicant has stated claims 10-13 to be cancelled in the Remarks section received 03 December 2008, however has listed the claims as withdrawn in the claims submitted the same date. Appropriate correction is required for clarification.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1, 2, 4, 5, 9, 14 and 18 are rejected under 35 U.S.C. 102(b) as being anticipated by Patent Abstract of Japan/Japanese Patent Publication 02039086 to Toshiro.

In regards to claims 1, 2, 4, 5, 9, 14 and 18, Toshiro teaches a color display device (figure 2) comprising a first display substrate (11) and a second display substrate (12) being spaced apart and opposed to each other, a layer of an electro-optic material (liquid crystal) between the substrates, a set of first electrodes on an inner surface of the first display substrate and a set of second electrodes on an inner surface of the second display substrate, the first electrodes overlapping the second electrodes to define pixels for selectively applying an electric field across at least some of the electro-optic material, a set of first color filters (17a) on the first display substrate, each of the electrodes being in register with one of the first color filters and a set of

second color filters (17b) on the second display substrate, each of the second electrodes being in register with one of the second color filters whereby the color of light transmitted through a pixel is determined by the light transmitted by both the first color filter and the second color filter that intersect at that pixel. Furthermore, Toshiro teaches a repeating stripe of cyan (7c), magenta (7m) and yellow (7y), and selected so that any two-by-two array pixels contains at least one red, one green and one blue pixel to produce white light when mixed.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 3, 6-8 and 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Patent Abstract of Japan/Japanese Patent Publication 02039086 to Toshiro.

In regards to claims 3 and 17, although Toshiro does not explicitly teach alternating strips of specific colors for the first and second filter, Toshiro does teach repetition of stripes.

Furthermore, it would simplify the manufacturing process of the device by using only two colors on each substrate. Additionally, depending on the desired resultant output, the yellow/cyan and the yellow/magenta would be a possible combination for one of ordinary skill to consider.

In regards to claims 6 and 7, although not explicitly stated, reflecting filters between a backlight and display are well known in the art.

Art Unit: 2874

In regards to claim 8, although not explicitly stated, it would have been obvious at the time the invention was made to a person having ordinary skill in the art to have included auxiliary electrodes (busbar) to improve the electrical conductivity.

Claims 15 and 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Patent Abstract of Japan/Japanese Patent Publication 02039086 to Toshiro.

Toshiro teaches a color liquid crystal display device comprising first and second spaced apart display substrates enclosing a layer of a liquid crystal material, an inner surface of each substrate being provided with a plurality of elongate parallel electrodes each of which is in register with an elongate color filter of substantially the same size and shape (See Figures) as the electrode with which it is registered and is provided on the same substrate; the electrodes on one of the inner surfaces being aligned substantially orthogonally to those on the other inner surface so that the color of light transmitted through a location where two color filters overlap is determined by the light transmitted by both of the filters and the color filters to be reflective absorptive filters. Although Toshiro does not explicitly teach the device to further include a backlight located adjacent to an outer surface of the second display substrate, one of ordinary skill would have likely included a backlight device since a backlight device to illuminate the display is well known.

Prior Art

The documents submitted by applicant in the Information Disclosure Statement have been considered and made of record. Note attached copy of form PTO-1449.

Art Unit: 2874

Inventorship

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to TINA M. WONG whose telephone number is (571)272-2352. The examiner can normally be reached on Monday-Friday 8:30-5:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Uyen-Chau Le can be reached on (571) 272-2397. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 2874

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Tina M Wong/ Primary Examiner, Art Unit 2874